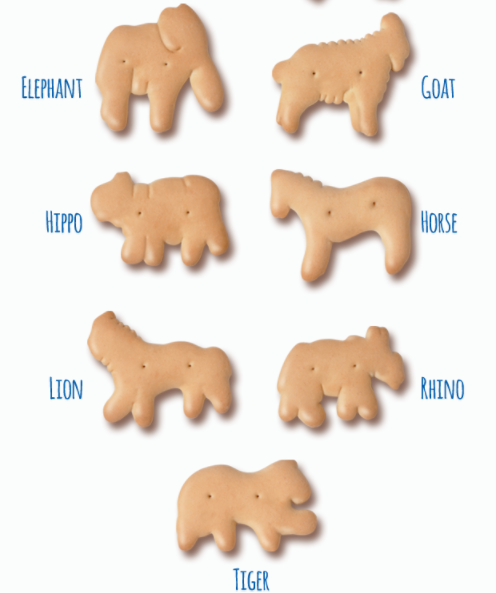
Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_

**Animal Cracker Cladogram Activity**

Pre-AP Biology, Mrs. Krouse

**Directions:** Today, you will create a cladogram to show the evolutionary relationships between different animal crackers. The 13 types of animal crackers are shown below.



1. With your partner, choose four different animal crackers. Identify a trait that is shared by all of the animal crackers. Remember, this is called a shared ancestral trait!

Shared Ancestral Trait:

1. Identify a trait that is found in only three of the animal crackers. This is your first derived trait.

First Derived Trait:

1. For the three animal crackers that shared your first derived trait, identify another trait that is found in only two of these animal crackers. This is your second derived trait.

Second Derived Trait:

1. For the two animal crackers that shared your second derived trait, identify another trait that is found in only one of these animal crackers. This is your third derived trait.

Third Derived Trait:

1. You can represent the animals and their traits in the chart given below. Fill in the names of each trait in the appropriate rows (shaded in gray). Fill in the names of each animal in the appropriate columns (shaded in gray). Place checkmarks in the appropriate boxes to indicate whether each trait is found in each organism.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Trait Names | Animals | | | |
|  |  |  |  |
| Shared Ancestral Trait |  |  |  |  |  |
| Derived Trait 1 |  |  |  |  |  |
| Derived Trait 2 |  |  |  |  |  |
| Derived Trait 3 |  |  |  |  |  |

1. Draw a cladogram for your organisms in the space below. Label the root, branches, tips, and nodes of the tree. Make sure to include labeled tick marks for each of your traits (including the shared ancestral trait).
2. Once you have drawn and labeled your cladogram, bring this paper to Mrs. Krouse. She will check your work and stamp it for you.